UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,186	11/25/2003	Joseph Dela Rutledge	YOR920030255US1	4211

21254 7590 07/03/2006

MCGINN INTELLECTUAL PROPERTY LAW GROUP, PLLC
8321 OLD COURTHOUSE ROAD
SUITE 200
VIENNA, VA 22182-3817

EXAMINER	
SHERMAN, STEPHEN G	

ART UNIT	PAPER NUMBER
2629	

DATE MAILED: 07/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/720,186	RUTLEDGE ET AL.	
	Examiner	Art Unit	
	Stephen G. Sherman	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 4 is objected to because it recites the limitation "said cursor movement signal." There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 5-6 and 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Junod et al. (US 5,854,621).

Regarding claim 1, Junod et al. disclose a controller for controlling a cursor, comprising:

an identifying module for identifying at least one of a first period when a cursor is in motion and a second period when said cursor is not in motion (Column 6, lines 37-65 explain that when a moue is being operated, i.e. the cursor is moving, the device is operated at full speed and when the mouse is not being used, i.e. the cursor is not in

motion, the encoders are sampled less frequently. This means that is the encoders sampling time is changed that the time periods in which the cursor is in motion and is not in motion would have to be identified.); and

a calibrating module for calibrating an input parameter signal using a first hands-off test during said first period and a second hands-off test, different than said first hands-off test, during said second period (Column 6, lines 37-65 explain that when a moue is being operated, i.e. the cursor is moving, the device is operated at full speed and when the mouse is not being used, i.e. the cursor is not in motion, the encoders are sampled less frequently. This means that the signal input during movement is calibrated using a first sampling time during the period when the mouse is being used and the input signal is calibrated using a less frequent sampling time during the period when the mouse is not being used. The examiner interprets that the device is 'calibrated' using the samples taken at the different frequencies to determine the movement of the mouse.).

Regarding claim 5, Junod et al. disclose the controller according to claim 1, wherein said calibrating module calibrates said input parameter signal during a hands-off period (Column 6, lines 37-65 explain that the input signal being calibrated is sampled during a period of time when the mouse is not being used, i.e. the user's hand is off of the mouse.).

Regarding claim 6, Junod et al. disclose the controller according to claim 1.

Junod et al. also disclose wherein said first and second hands-off tests are used by said calibrating module to determine a hands-off period during which a device for controlling said cursor is not being touched by a user (Column 6, lines 37-65 explain that input is detected by the encoders during a period of no-use, i.e. untouched by the user.), and

wherein said calibrating module calibrates a significant input parameter signal by identifying an input parameter signal detected during said hands-off period as having a zero value, relative to which said significant input parameter signal is measured (Column 6, lines 37-65 explain that the input signal is detected by the encoders and is calibrated using different sampling frequencies by using a less frequent sampling frequency when the device is not being operated, i.e. zero value is detected, relative to when a more frequent sampling frequency which is used when a significant input signal is detected, i.e. the device is being operated by a user.).

Regarding claim 18, this claim is rejected under the same rationale as claim 1.

Regarding claim 19, this claim is rejected under the same rationale as claims 1 and 6.

Regarding claim 20, this claim is rejected under the same rationale as claim 1.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Junod et al. (US 5,854,621) in view of AAPA (Page 1, line 13 to page 3, line 13 of the specification.).

Regarding claim 8, Junod et al. disclose the controller according to claim 1.

Junod et al. fail to teach wherein said second hands-off test is less stringent than said first hands-off test.

AAPA discloses of two different hands-off tests, one of which being less stringent that the other (Page 2, line 20 to page 3, line 8 of the specification states that when a

cursor is in motion a more stringent test is best to be used and that when a cursor is not is motion that a less stringent test is best to be used.).

Therefore it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to make the tests taught by Junod et al. have the testing times taught by the tests of the AAPA in order to allow for the correct cursor position data to be detected.

Regarding claim 9, Junod et al. disclose the controller according to claim 1.

Junod et al. fail to teach wherein said second hands-off test is less stringent than said first hands-off test.

AAPA discloses of two different hands-off tests, one of which being less stringent that the other (Page 2, line 20 to page 3, line 8 of the specification states that when a cursor is in motion a more stringent test is best to be used and that when a cursor is not is motion that a less stringent test is best to be used.).

Therefore it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to make the tests taught by Junod et al. have the testing times taught by the tests of the AAPA in order to allow for the correct cursor position data to be detected.

Junod et al. and AAPA fail to explicitly teach wherein said first hands-off test comprises a duration of at least about 5 seconds, and said second hands-off test comprises no more than about 0.53 seconds, however, AAPA does disclose of the tests being 2.88 second and .53 seconds.

Therefore it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to make the test lengths taught by Junod and AAPA 5 seconds and .53 seconds in order to allow for the proper detection of the signals to take place.

7. Claims 2-4, 7 and 10-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Junod et al. (US 5,854,621) in view of May (US 2004/0066368) and further in view of AAPA (Page 1, line 13 to page 3, line 13 of the specification.).

Regarding claim 2, Junod et al. disclose the controller according to claim 1.

Junod et al. also disclose wherein said calibrating module outputs a calibrated input parameter signal to an output module (Figure 1 and column 7, lines 22-49 explain that the mouse outputs signals to the host adapter 20 concerning the displacement movements of the mouse.).

Junod et al. fail to teach wherein the controller for a cursor can be used for other input devices besides a mouse.

May discloses wherein a controller for a cursor comprising hand-off testing can be used for input devices such as keyboards, joysticks and remote controllers (Paragraph [0029].).

Therefore it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to use the controller for a cursor taught by Junod et al. with

another input device such as a joystick in order to provide a power saving management system for a joystick.

Junod et al. and May fail to teach wherein said identifying module inputs said input parameter signal from a force sensor.

AAPA discloses wherein an identifying module inputs said input parameter signal from a force sensor (Page 1, lines 13-17 of the specification state that a pointing stick, i.e. joystick, senses finger force meaning that the input is detected by a force sensor.).

Therefore it would have been obvious to "one of ordinary skill" in the art at the time the invention was made that the identifying module taught by the combination of Junod et al. and May receives input from a force sensor as taught by AAPA in order to allow for the detection of whether or not the device has been touched by a user or not.

Regarding claim 3, Junod et al., May and AAPA disclose the controller according to claim 2.

Junod et al. also disclose wherein said input parameter signal comprises an input parameter signal detected during a period when a mouse is untouched by a user (Column 6, lines 37-65 explain that input is detected by the encoders during a period of no-use, i.e. untouched by the user, meaning that with the combination of Junod, May and AAPA the joystick input signal would be detected by the force sensor during a period of non-use.).

Regarding claim 4, Junod et al., May and AAPA disclose the controller according to claim 2.

AAPA also disclose wherein a transfer function for generating said cursor movement signal comprises a dead band within which said cursor movement signal causes no cursor movement for a non-zero input parameter signal (Page 2, lines 1-4 explain that the transfer function contains a dead band for which no movement is produced.).

Regarding claim 7, Junod et al. disclose the controller according to claim 1,

Junod et al. fail to teach wherein the controller for a cursor can be used for other input devices besides a mouse.

May discloses wherein a controller for a cursor comprising hand-off testing can be used for input devices such as keyboards, joysticks and remote controllers (Paragraph [0029].).

Therefore it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to use the controller for a cursor taught by Junod et al. with another input device such as a joystick in order to provide a power saving management system for a joystick.

Junod et al. and May fail to teach wherein said input parameter signal is calibrated to inhibit a cursor drift.

AAPA disclose wherein an input parameter signal is calibrated to inhibit a cursor drift (Page 1, lines 18-22).

Therefore it would have been obvious to "one of ordinary skill" in the art at the time the invention was made that the input parameter signal taught by the combination of Junod et al. and May is calibrated to inhibit a cursor drift as taught by AAPA in order to allow for the proper detection of when the cursor is in motion such that improper movement is not detected.

Regarding claim 10, this claim is rejected under the same rationale as claims 1 and 2.

Regarding claim 11, Junod et al., May and AAPA disclose the cursor control system according to claim 10.

Junod et al. also disclose a cursor control system further comprising:

an output module which receives a calibrated input parameter signal from said calibrating module and outputs a cursor movement signal based on said calibrated input parameter signal (Figure 1 and column 7, lines 22-49 explain that the mouse outputs signals to the host adapter 20 concerning the displacement movements of the mouse, where the movement of the mouse would then be outputted to a display showing the mouse cursor.).

Regarding claim 12, Junod et al., May and AAPA disclose the cursor control system according to claim 10.

AAPA also disclose wherein said force sensor comprises a pointing device which is integrally-formed in a keyboard assembly (Page 1, lines 13-17 of the specification state that the pointing stick such as the Trackpoint system senses finger force and translates it to the movement of a cursor on a screen, where it is well known that the Trackpoint system pointing stick is found in notebook computers in a keyboard assembly.).

Regarding claim 13, this claim is rejected under the same rationale as claim 5.

Regarding claim 14, this claim is rejected under the same rationale as claim 9.

Regarding claim 15, this claim is rejected under the same rationale as claim 9.

Regarding claim 16, this claim is rejected under the same rationale as claim 12.

Regarding claim 17, please refer to the rejection of claim 16, and furthermore AAPA also disclose a display device for displaying a cursor controlled by said cursor control system (Page 1, lines 13-17 of the specification states that the movement of a cursor is displayed on a display screen.).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Vandenboom et al. (US 6,014,900) disclose of a test system for a pointing stick that can account for cursor drift.

Van Brocklin et al. (US 2003/0117370) disclose of a notebook computer with an input device for moving a cursor that detects whether a hand is touching the input device or not and if a hand is not touching the device cursor movement is not made on the display screen.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen G. Sherman whose telephone number is (571) 272-2941. The examiner can normally be reached on M-F, 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SS

22 June 2006

AMR A. AWAD
PRIMARY EXAMINER